



Adjustable Screw Feeder

Product Introductions



AT-1050

AT-1050C

AT-1060

AT-1060C

AT-1030TC

ASA ENTERPRISE CO.

2F., No.346, Sec. 6, Nanjing E. Rd, Neihu Dist.,

Taipei city, Taiwan, 11470

Tel: +886-2-27900535

Fax: +886-2-27949952

Email: asaswdvr@ms16.hinet.net

Website: www.asa-tool.com

■ **Special Thanks to our customer**

Thank you for choosing our adjustable screw feeder. To ensure the tool fully utilizes its maximum performance and extend its life, please read this manual before use.

-Table of Content-

General Safety Warnings.....	03
Read before use	04
Declaration of Conformity CE/Service	05
Detection and Calibration.....	06
Product information.....	07
Operation	09
Troubleshooting	19

■ General Safety Warnings



WARNING: Read all safety warnings and all instructions.



Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.



Save all warnings and instructions for future reference.

■ Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

■ Electrical safety

- No objects should be placed on top of the adaptor, do not abuse the cord or use it to tie a knot.
- Before connecting or un-plugging the adaptor, please make sure the power is on or off.
- Power tool plugs must match the outlet. Never modify the plug in any way. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool/its adaptor will increase the risk of electric shock.
- Please use the cord correctly. Do not use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

■ Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.
- Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.



Read before use:

- Please switch off the power after testing.
- Do not knock or place any heavy objects on the top of the display screen.
- Avoid too much internal adjustment while operating calibration.
- Please handle with care and avoid dropping it heavily.
- The screw feeder is very sensitive to the environment. Please avoid using it under below environments:
 - The place where water, oil or other liquid might split.
 - Vibrating, messy or high-heated places.
 - Outdoor or where any electric spark might be generated.
 - High humidity and high temperature places. (Suitable Humidity: 25% – 65%, Temperature : 15 – 35°C)
 - Any place where any possibilities might cause the damage or breakdown of the torque meter.
- Do not keep the screw feeder under high humidity and high temperature environment, or else, it might reduce its function.



■ Declaration of Conformity CE

We (ASA Enterprise Corporation) declare under our sole responsibility that the products controller described under this manual are in conformity with the following Directives/ or standardization documents: EMC Directive 2014/30/EU

■ Service

Have your screw feeder serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the screw feeder is maintained.

■ Warranty

We offer one-year free repair service with this product. (Two years for brushless electric screwdriver.) The warranty is valid for one year from the date of purchase entered on the Product Information Form. Please note that this warranty policy does not apply to the circumstances listed below and we will charge for repair or labor cost if necessary.

- Normal damage to the spare parts: relay (Switch or brake circuit).
- The unit was not plugged to designated power source.
- Improper use or attempt to disassemble unit by user.
- Out of the warranty period or the user cannot present the manual.

■ **Precautions in returning back tester for calibration or maintenance.**

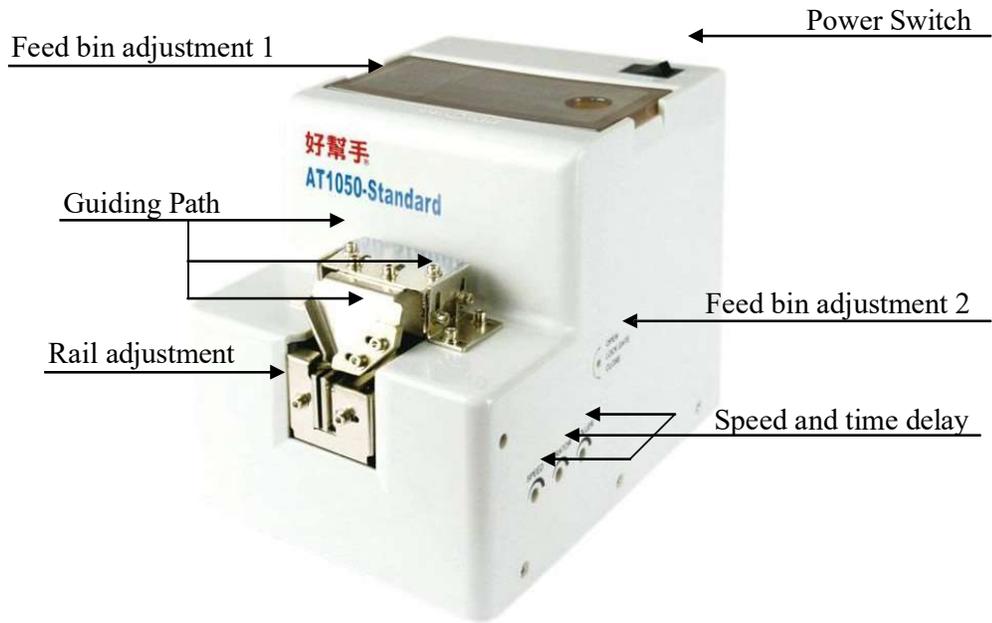
- Place the screw feeder in original toolbox so as to avoid damage in transportation.
- Except original objects in toolbox, no other objects shall be placed in the box. Self-made mounting plate, tool or standby tool head shall not be placed in. Our company assumes no liability hereto.
- Please describe failure in detail.

■ Feature

- The design of separating rail allows free adjustment and it is easy to operate.
- The special design of the structure makes feeding fast and stable without idled screws being stuck in the machine.
- AT-1030TC is designed with fixed rail and rotary plate and is suitable for various screws M1.0~5.0. Its automatic screw feeding prevents screws from being stuck inside the machine.
- AT-1030TC can be used with automation and air screwdrivers.
- The feeding and charging speed of the machine can be adjusted freely according to the operating requirements.
- This machine is suitable for both special 1:1 short screws and screws with washer.
- Small size, occupying little space, and easy to move.
- Universal power source: It is suitable for power source ranges between 100~240 VAC, 50/60Hz.
- The driver of feeding and shaking are controlled independently. You can set your ideal lag shutdown time freely. The breakdown alarm function will be automatically turned on in case of abnormal conditions.

■ Specification

Model No.		AT-1050 Standard	AT-1050C Counting	AT-1060 Standard	AT-1060C Counting	AT-1030TC Automation/Vacuum pick up type
Available Screw	Diameter of Screw Thread	M1.0~5.0mm	M1.0~5.0mm	M1.0~6.0mm	M1.0~6.0mm	M1.0~4.0mm
	Counting Function	X	V	X	V	V
	Type of Screw Head	JCIS: 1、2、3 and pan-headed. JIS: Pan head, button, truss, round, flat, WH. w/t spring washer, and w/t spring washer and flat.		JCIS: 1、2、3 and flat-headed. JIS: flat head, tightening screw, pressure screw, and UH mushroom head (Flat head or oval flat head) w/t or without washer.		
	Material of screw head	Iron or the material which can be attracted by the magnet				
	Length of screw (Max.)	20mm		25mm		10mm
	Length of screw (Min.)	Single screw: diameter x1.0; Screw with spring washer: diameter+ (0.5x diameter) ; Screw with spring washer and flat washer: diameter + (1.1x diameter)				
Output speed		2PCS/ Second				
Protection/ Recovery Function		Overload protection circuit, reverse power polarity prevention circuit				
AC Adaptor		Input: 100~240VAC、50/60 Hz, Output:12 VDC				
Dimension(mm)		185x130x150mm		235x165x180mm		222.5x126x149mm
Weight(kg)		1.8kg	2.2kg	4.8kg	4.8kg	3.0kg
Accessories		Operation manual; AC adapter; Hexagon wrench				



■ Feature of vibration motor SPEED:

- Screw supply ROLLER adjustment principle:
 - When the screw is too big or the screw outline is not good for entering the guide groove, please longer the roller hand time so as to maximize the rate of screw falling into the orbit guide, and vice versa.
- Orbit guide VIBRATION adjustment principle:
 - When the screw is too big or the screw outline is not good for feeding, please longer the orbit guide vibration hang time so as to ensure the screw can be compensated in time, and vice versa.
- Some operation parts should be added lube every two months, such as the upper and lower parts of the brush swaying driver and gear driving parts.
- Procedure for removing the rail:

Draw the rail out to adjust the rail clearance in accordance with the diameter of the screw (by means of the inner hexagon spanner).

①



Loosen the set screw for the rail

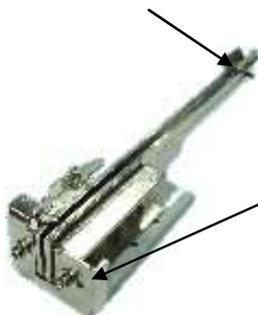
②



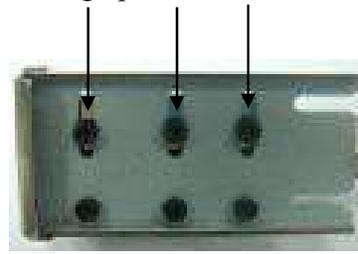
Fully open the door clockwise to draw out the rail.

-Procedure for adjusting the rail

① Adjust the clearance by means addition or deletion of the shim.



② Loosen the four screws, and adjust them to the same clearance for the rail. After the adjustment is over, tighten up the locking up screws.



※Note: Use the appropriate shims to adjust the rail clearance which shall be uniform along its whole length based on the size of the screw. The clearance= $M(\text{screw})+0.4\text{mm}$

- The following three points shall be pay attention in order to feed the screws easily:
 - The guiding must be alignment with the rail.

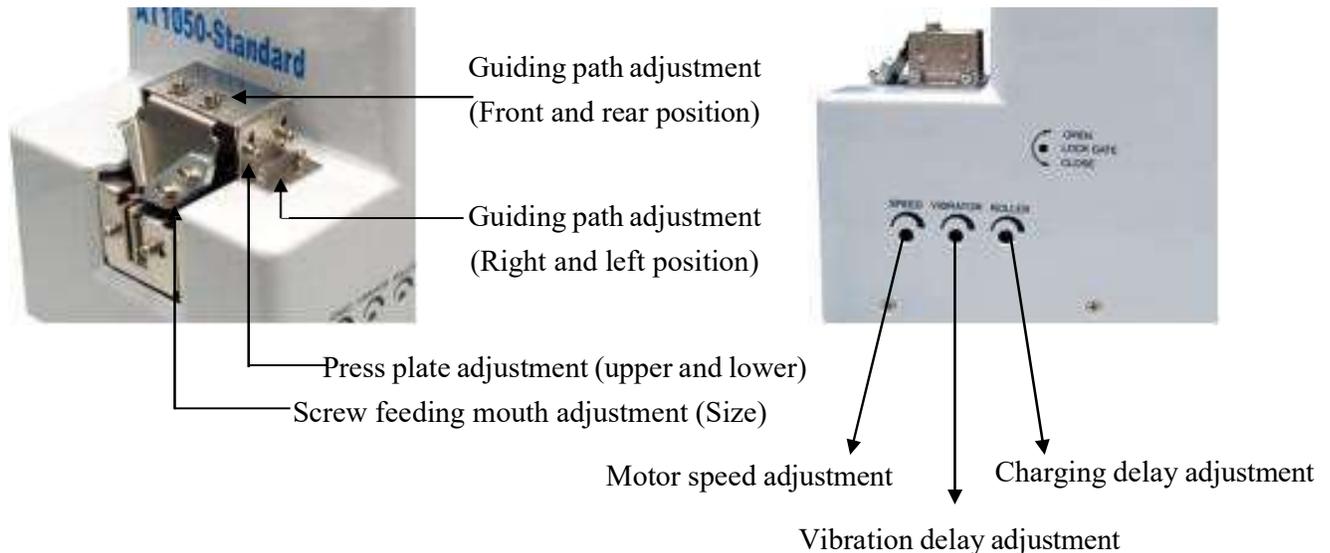
Operation

- The height between the guiding path and rail shall be adjusted according to the thickness of the screw head. The height = the thickness of the screw head + 0.4mm.
- The front and rear positions of the guiding path at the “V” groove shall be appropriate so that the cruciform slot of the nut is just exposed.

-Motor Speed Adjustment

Turn the knob clockwise for higher speed, and counterclockwise for lower speed; Vibration delay refers to the time delay in feeding the screws after it is sensed at the feeding place. Turn the knob clockwise for longer delay, and counterclockwise for shorter one. The delay shall not be too long or too short. For M2 and below, the delay is suggested to be 1.0 sec. For M2-M3, 1.5sec. For M3 above, 3sec. Charging delay refers to the time delay in charging the machine with the screw after the screw is sensed at the feeding counterclockwise for shorter one.

-The procedure for adjusting the guiding path and others is shown in the following pictures (by means of the inner hexagon spanner, one of the accessories.)



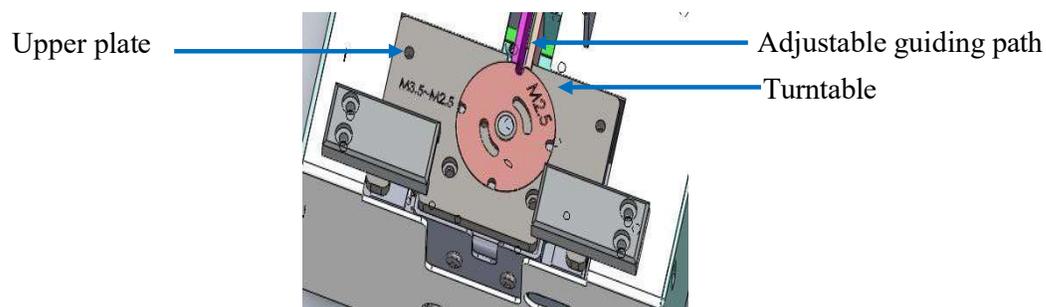
Adjust the height positions of the brush according to the size of the screw. (Generally the front is lower while the rear is higher.)



After the size of the screws are set, adjust the stop piece of the feed bin via the panel, otherwise the screw will come out from the feed bin.

■ AT-1030TC Spare parts changing

- Choose the corresponding screws.
- Choose the corresponding accessories in accordance to the below chart.



Model	Screw	Turntable	Guiding Path	Upper plate
Vacuum pick-up type	M1.0	M1.0	1.1 mm	M1.0 ~ M1.4
	M1.2	M1.2	1.3 mm	
	M1.4	M1.4	1.5 mm	
	M1.6	M1.6	1.7 mm	M1.6 ~ M2.0
	M1.8	M1.8	1.9 mm	
	M2.0	M2.0	2.1 mm	M2.5~ M4.0
	M2.3	M2.3	2.4 mm	
	M2.5	M2.5	2.7 mm	
	M2.6	M2.6	2.8 mm	
	M2.7	M2.7	2.9 mm	
	M3.0	M3.0	3.2 mm	
	M3.5	M3.5	3.7 mm	
M4.0	M4.0	4.2 mm		

Operation

-Use a screwdriver to unfasten the side of the screw (picture 1), and remove the front plate. (picture 2)



Picture 1



Picture 2

-Remove the fastened screws on the guiding path.



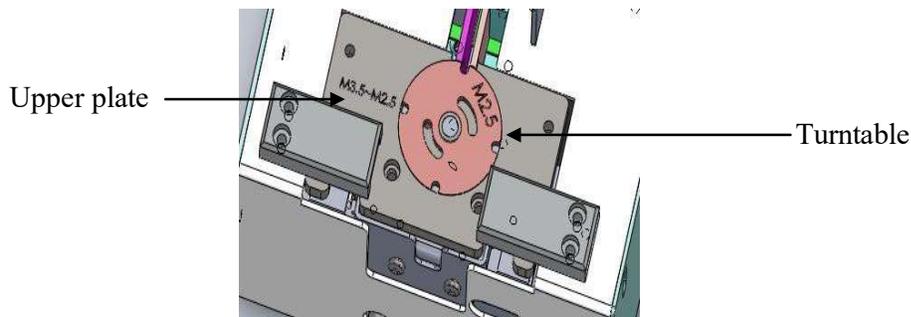
-Unfasten the feed bin adjustment 2, and remove the guiding path.



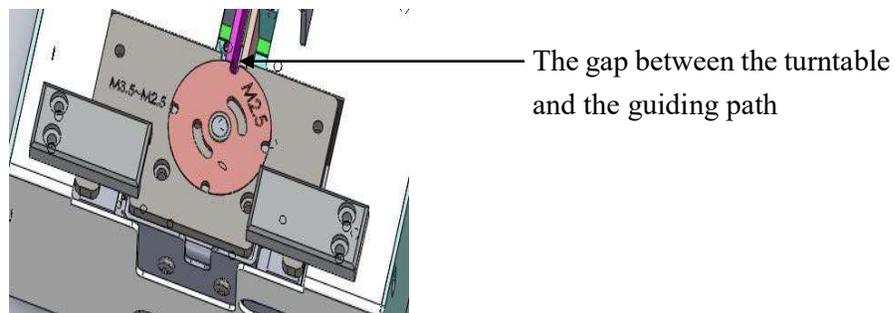
-Adjust the path to the corresponding size of the screw, use the suitable adjust plate on the back of the path. Then use a screw to test if it can slide smoothly.



-Change the turntable and upper plate



-Check if the turntable's opening spot and path are corresponding during operating. Check if the gap between turntable and guiding path is around 0.3mm.



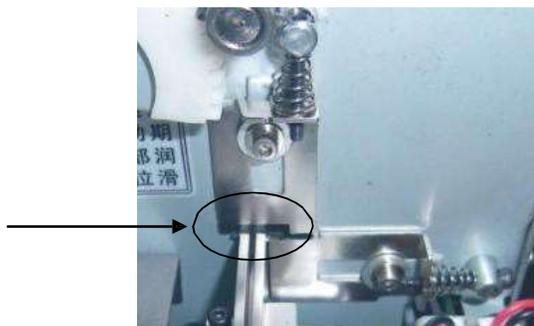
-Adjust the height of the rail plate



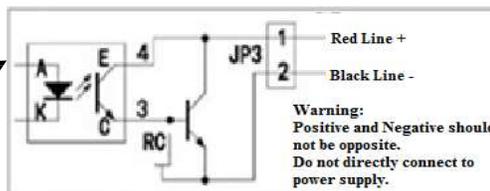
-Adjust the height of the brush



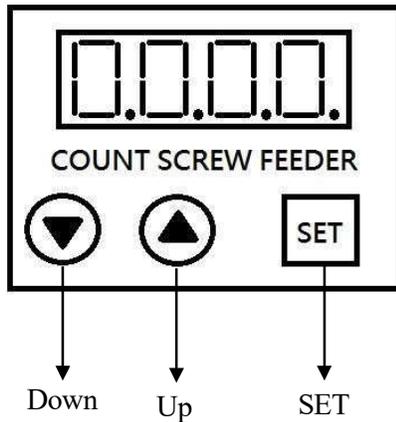
-After adjusting the guiding path, please adjust the gap between feed bin adjustment 1&2 and the path into 0.5mm.



-Other parts adjustment



■ AT-1050C counting function instruction



-Press and hold "SET" for 3-seconds to choose the screw speed setting:



Screw feeding speed setting: Press ▲▼ to adjust:

Fastest: 20
Slowest: 01

-Press "SET" to choose the feeding delay setting:



Feeding delay setting: Press ▲▼ to adjust:

Longest: 5.0 sec
Shortest: 0.5 sec

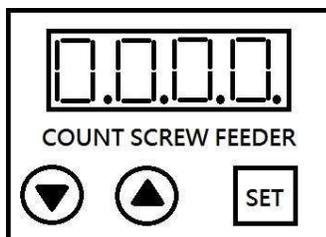
-Press "SET" to choose the sweeping speed delay setting:



Sweeping delay setting: Press ▲▼ to adjust:

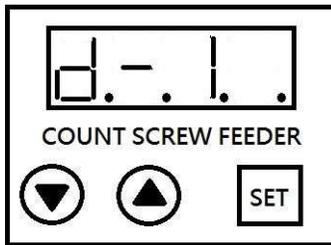
Longest: 5.0 sec
Shortest: 0.5 sec

-Press "SET" to choose the screw limit setting:



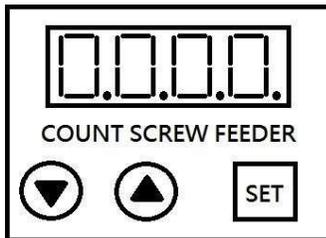
Screw limit setting: Press ▲▼ to set the screw counting quantity

-Press "SET" to enter the alarm setting:

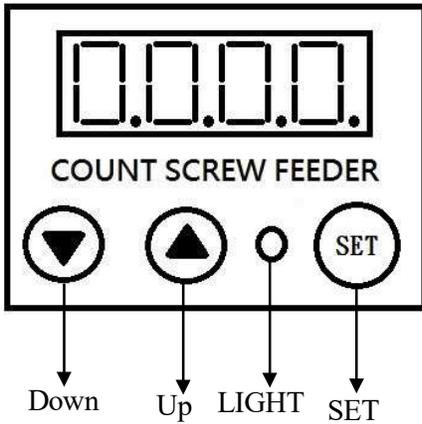


Alarm setting: 0-turn off the alarm
1-turn on the alarm

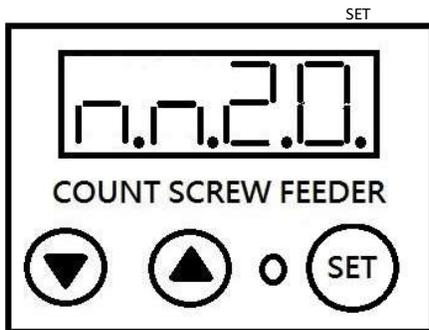
-Press "SET" to complete setting and return to the main screen.



■ AT-1030TC counting function instruction



-Press and hold "SET" for 3-seconds to adjust the screw dimension:

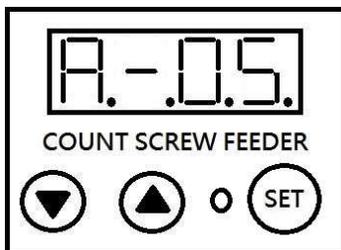


Screw dimension setting: Press ▲▼ to adjust:

Biggest: nn-50

Smallest: nn-10

-Press and hold "▼" for 3-seconds to choose the screw speed setting:

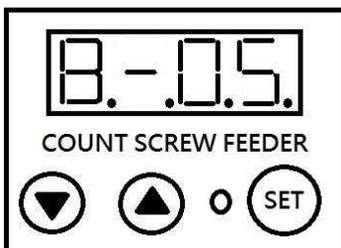


Screw feeding speed setting: Press ▲▼ to adjust:

Fastest: 20

Slowest: 01

-Press "▼" to choose the feeding delay setting:

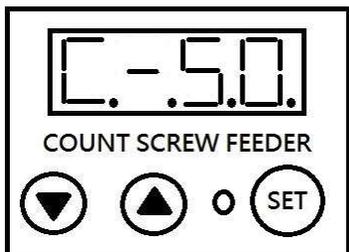


Feeding delay setting: Press ▲▼ to adjust:

Longest: 6.0 sec

Shortest: 0.0 sec

-Press “SET” to choose the sweeping speed delay setting:

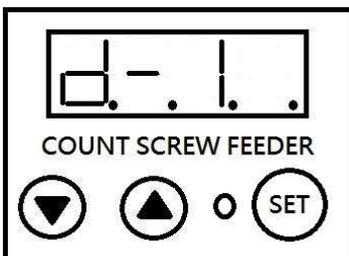


Sweeping delay setting: Press ▲▼ to adjust:

Longest: 8.0 sec

Shortest: 0.8 sec

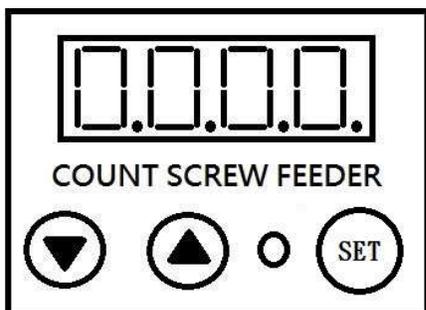
-Press “SET” to enter the counting function:



Counting : 0-turn off the counting

1-turn on the counting

-Press “SET” to complete setting and return to the main screen.



-Press “▲” to reset the calculate function..

■ Troubleshooting

If functional defect of this screw feeder occurs, please proceed the troubleshooting according to following guides. If the failure still cannot be solved, please contact ASA Company or local distributors.

Defect	Cause	Solution
No power	<ol style="list-style-type: none"> 1. Power supply is damaged 2. Switch damage 3. DC socket damaged 	Check for update
Indicator lit but the machine does not work	<ol style="list-style-type: none"> 1. Sensor located in wrong location or was blocked 2. The power cord motor is broken 3. Working parts of the machine are blocked (gear center) 	<ol style="list-style-type: none"> 1. Check and adjust 2. Re-welding 3. Remove them from the machine
Screw was blocked in rail	Rail gap, press plate or brush position is wrong	Check and adjust
Screw leak out from feed bin	The screw block plate container located in wrong location	Adjust the apron position
Keep vibrating and no stop	<ol style="list-style-type: none"> 1. Feeding delay is too long 2. Sensor located in wrong location 3. Screw is not in the right position 	Check and adjust whether sensor is in the right position or not
Screw transportation is too low	<ol style="list-style-type: none"> 1. Feeding speed is slow 2. Delay time is too short 3. The gap of the rail is not suitable 4. The rail touches the board 5. No gap between rail and front board 6. There are dropped screws between vibrated motor and bottom board 	<ol style="list-style-type: none"> 1. Adjust the motor speed 2. Increase the feeding delay time 3. Adjust the gap 0.5~1mm 4. Remove the dropped screws

Enjoying in Technique of Assemblies



Retailer's Stamp		Attention! The generic or unsuitable parts might seriously affect the screw feeder's lifespan, please purchase the parts from original manufacturer to secure your rights.
---------------------	--	--